

NITRIDE SEMICONDUCTOR SUBSTRATE AND MANUFACTURE THEREOF

Patent number: JP11251253
Publication date: 1999-09-17
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Classification:
- international: H01L21/205; H01L31/02; H01L33/00; H01S3/18
- european:
Application number: JP19980052573 19980305
Priority number(s):

Abstract of JP11251253

PROBLEM TO BE SOLVED: To provide a method for manufacturing a nitride semiconductor substrate having good crystallinity, and a nitride semiconductor substrate.

SOLUTION: By providing a first step of growing an underlying layer 2 made of a first nitride semiconductor on a different-type substrate 1, made of a material different from a nitride semiconductor and not growing a nitride semiconductor on the surface of the underlying layer 2 or partially forming a protective film 10 which is hard to grow, a second step of growing a second nitride semiconductor 3 from the underlying layer 2 up to the top of the protective film 10 by a metal organic vapor phase growth method after the first step, and a third step of growing a third nitride semiconductor 4 having a thickness greater than that of the second nitride semiconductor 3 on the second nitride semiconductor 3 by a hydride vapor phase growth method after the second step, a crystal defect in the nitride semiconductor substrate is stopped halfway through the growth.

